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Geometric structures of the N,N-dimethylamides and N-methylanilides of arylsulfonic acids

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Abstract

1. Dipole moments and components of the poiarizability tensor have been calculated for the S-N bond in the sulfamides. 2. The aryl radicals in the N,N-dimethylsulfamides project out of the C---N plane by an angle of 66 ±10°. 3. In the arylsulfanilides, the angle of rotation around the S-N bond is 270 t{combining short stroke overlay} 30°. 4. The fact that the angle of aryl rotation at the N atom is not dependent on the nature of the substituent is an indication that there is only negligible conjugation between the aromatic ring and the unshared electron pair of the nitrogen.

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